

NOAA Climate Science & Services

Monthly Climate Update

A look back at April and a preview of June through August

Jake Crouch

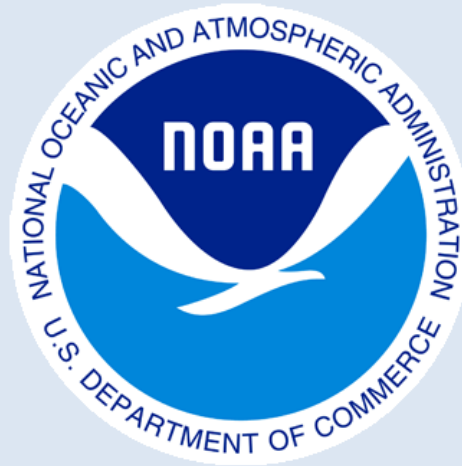
Climate Scientist, Climate Monitoring Branch,
NOAA's National Climatic Data Center

Michael Timlin

Regional Climatologist
Midwestern Regional Climate Center

David Unger

Seasonal Forecaster, Operations Branch
NOAA's Climate Prediction Center



U.S. Climate Highlights - April

Cooler and wetter than average nationally

Coldest April since 1997; 5th largest snow cover extent*

Temperature: 1.4°F below average – 23rd coolest

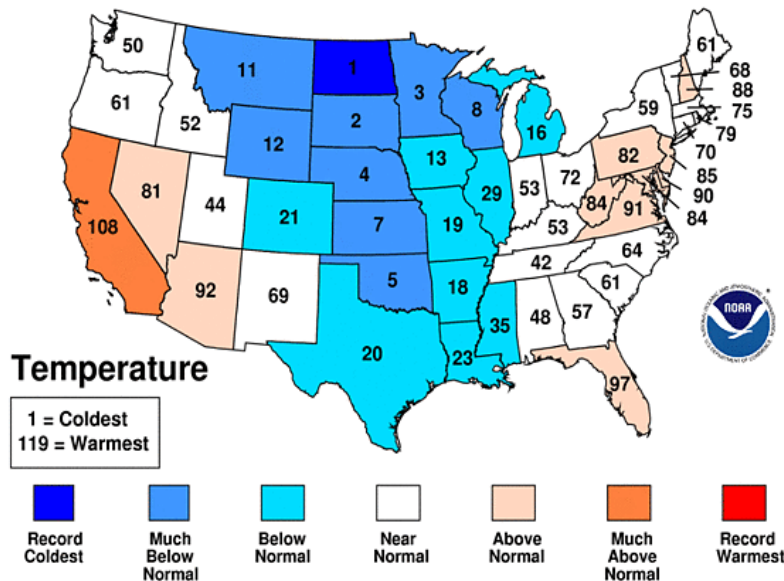
- **Cool:** Central US. ND has record cold April. Six additional states top ten cold.
- **Warm:** West Coast. CA has 12th warmest April.

Precipitation: 0.47" above average – 19th wettest

- **Dry:** Southwest and Northeast.
- **Wet:** Midwest and Southeast. IA and MI have record wet April. Four more states top ten wet.

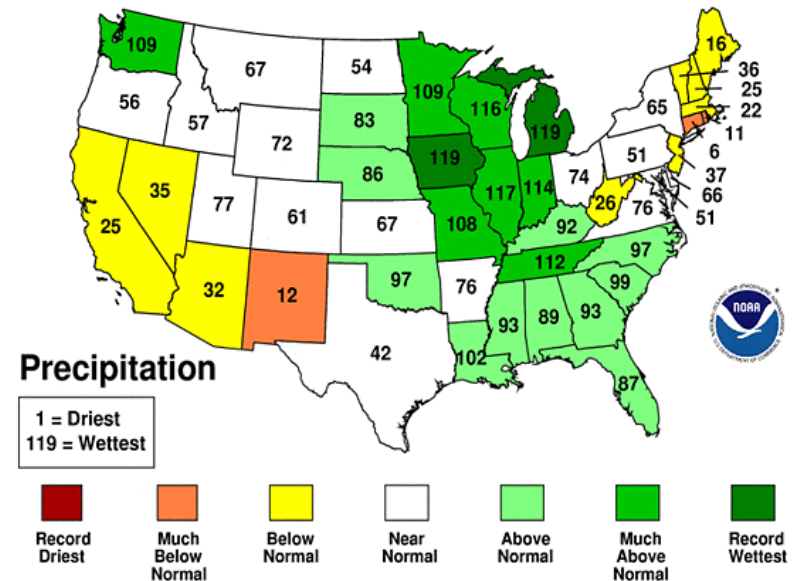
April 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



April 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA

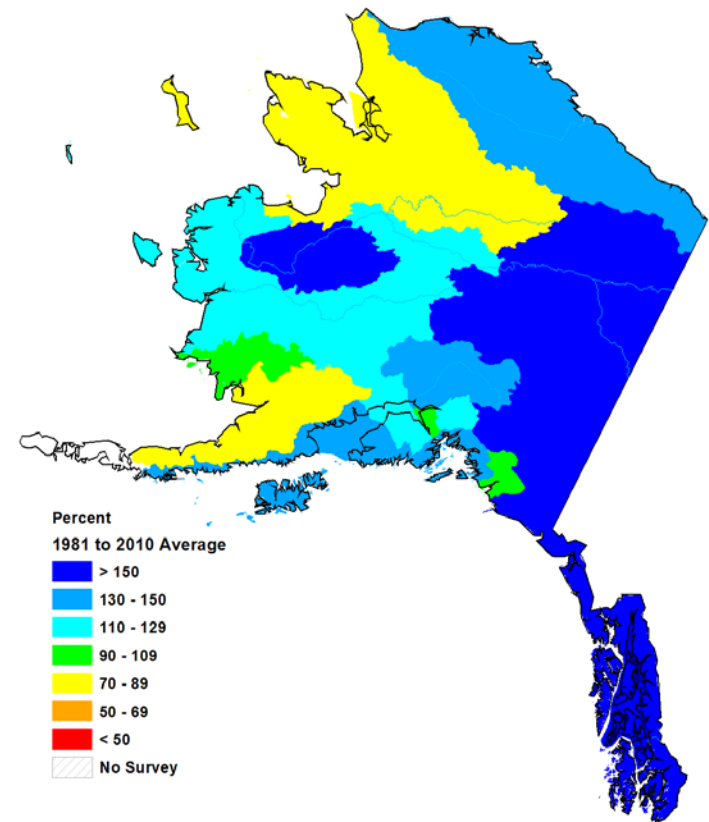


Alaska Climate Highlights - April

Alaska cool and wet during April

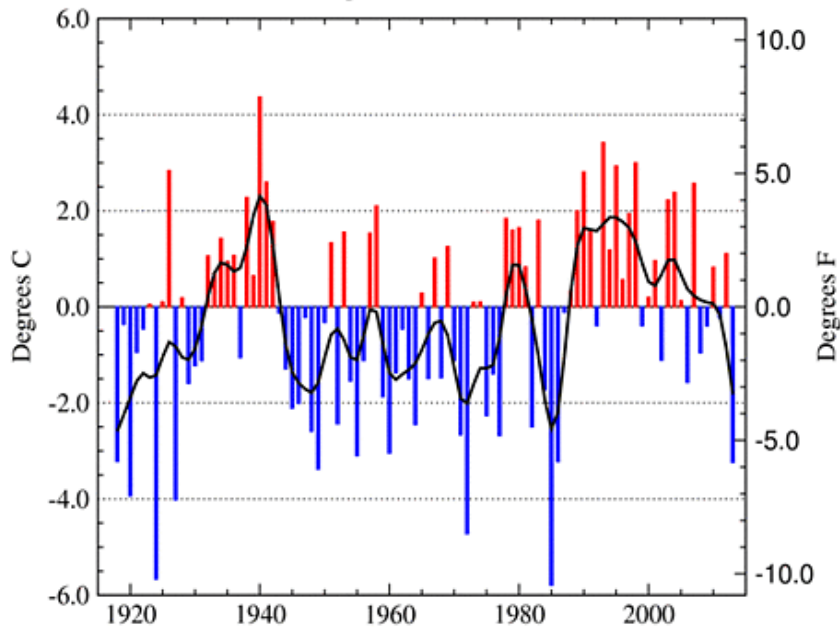
- 7th coldest April on record; 5.8°F below average
- Cold and wet conditions were associated with much-above-average snowpack in most locations.

Alaska Snowpack as of May 1, 2013



Prepared by
USDA, Natural Resources Conservation Service
National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Alaska Statewide Temperature Anomalies April (1918-2013)

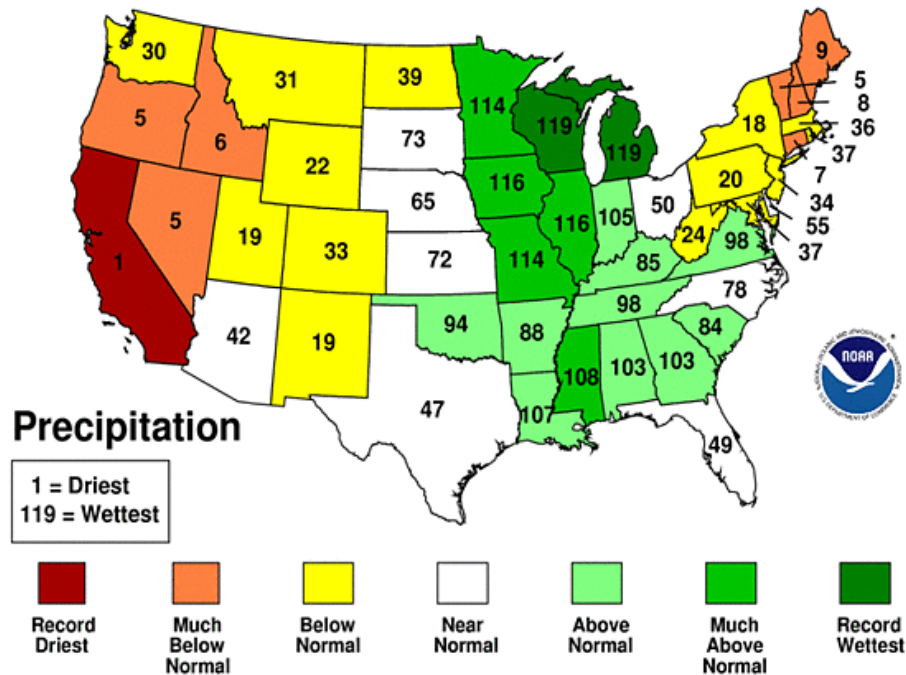


U.S. Climate Highlights – Year to Date

Precipitation extremes during January-April 2013 Slightly below average precipitation for Lower-48

January-April 2013 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



National Precipitation 0.13" below average

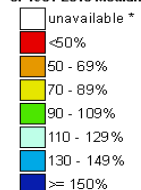
- **Dry:** West and Northeast.
 - ID, NV, OR and CT, ME, NH, VT top ten dry.
 - CA has driest Jan-Apr on record with 27% of average precipitation.
- **Wet:** Midwest and Southeast.
 - IA, IL, MO, MN top ten dry.
 - MI and WI have wettest year-to-date on record.
- Drought improves in Southeast and Midwest but expands westward.

U.S. Climate Highlights

West SNOTEL Current Snow Water Equivalent (SWE) % of Normal

May 15, 2013

Current Snow Water Equivalent (SWE)
Basin-wide Percent
of 1981-2010 Median



* Data unavailable
at time of posting
or measurement
is not representative
at this time of year

Provisional data
subject to revision



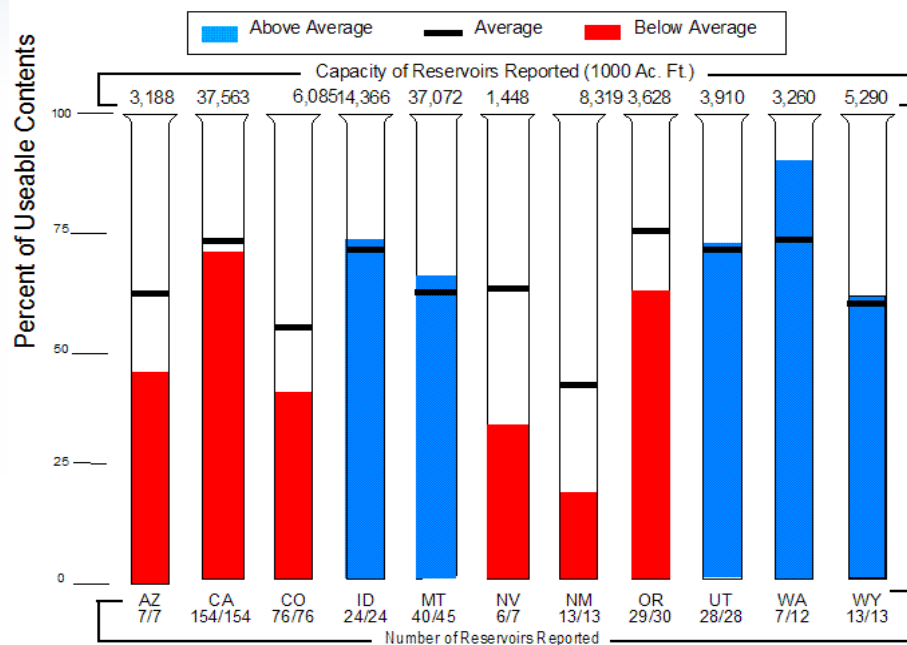
The snow water equivalent percent of normal represents the current snowwater equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/igis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@nrcs.usda.gov 503 414 3047

Dry with low snowpack in the West

- Water availability depends heavily on spring snowpack in the West. Reservoirs already low, with dismal snowpack totals in some locations.

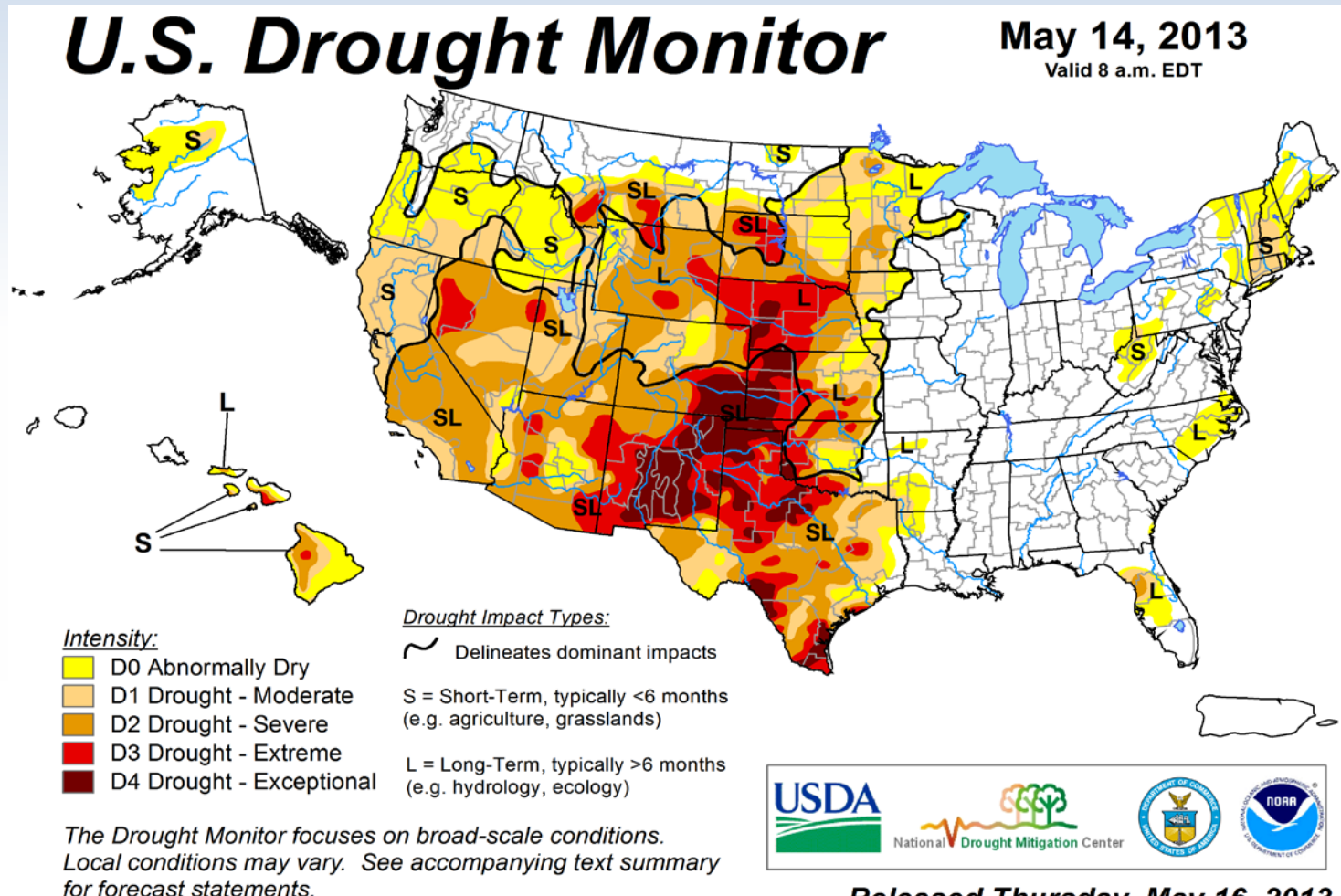
Reservoir Storage as of May 1, 2013



Prepared by: USDA, Natural Resources Conservation Service, National Water and Climate Center, Portland, OR
<http://www.wcc.nrcs.usda.gov>

U.S. Drought Monitor

47.7 percent of contiguous U.S. in drought



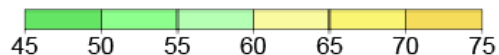
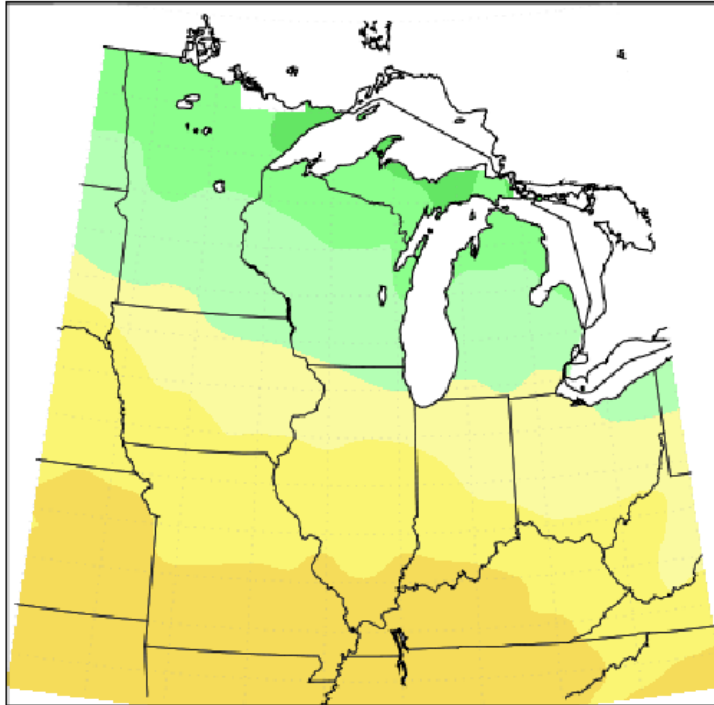
<http://droughtmonitor.unl.edu/>

Released Thursday, May 16, 2013
Author: Rich Tinker, NOAA/NWS/NCEP/CPC

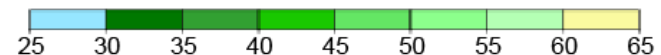
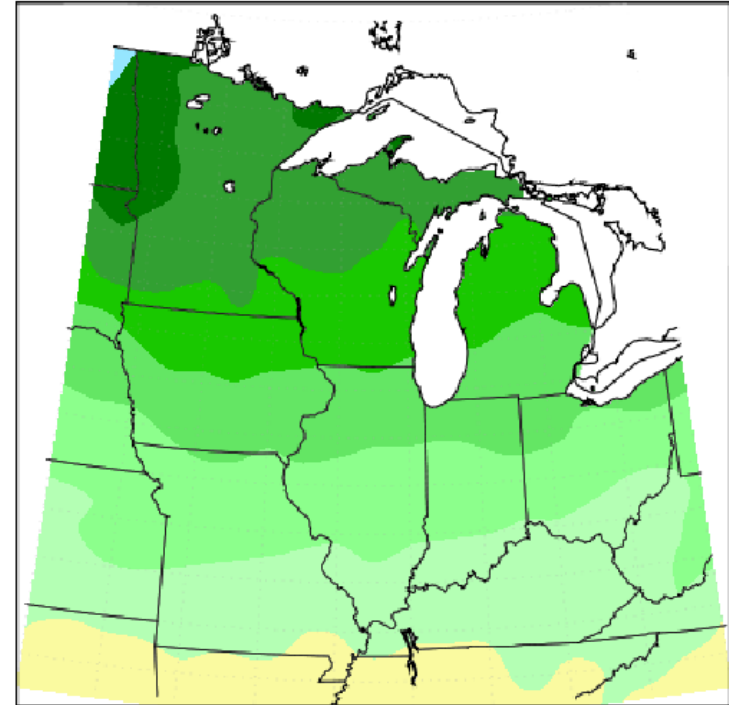
Midwestern Regional Highlights

Cool 2013 Spring Temperatures – Contrast to 2012

Average Maximum Temperature, (°F)
March 1, 2012 to April 30, 2012



Average Maximum Temperature, (°F)
March 1, 2013 to April 30, 2013



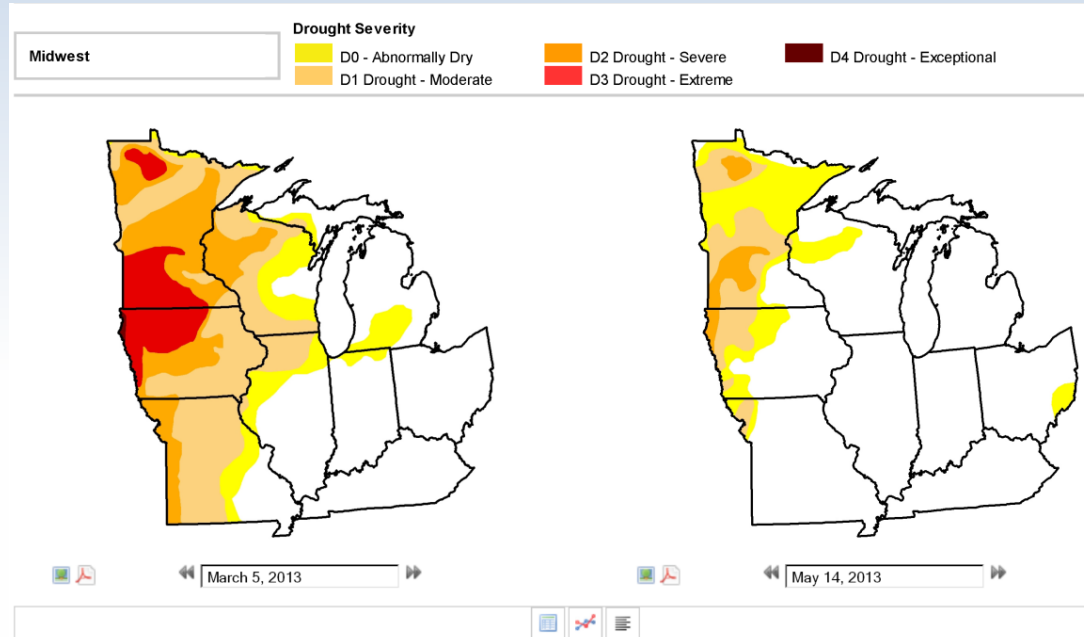
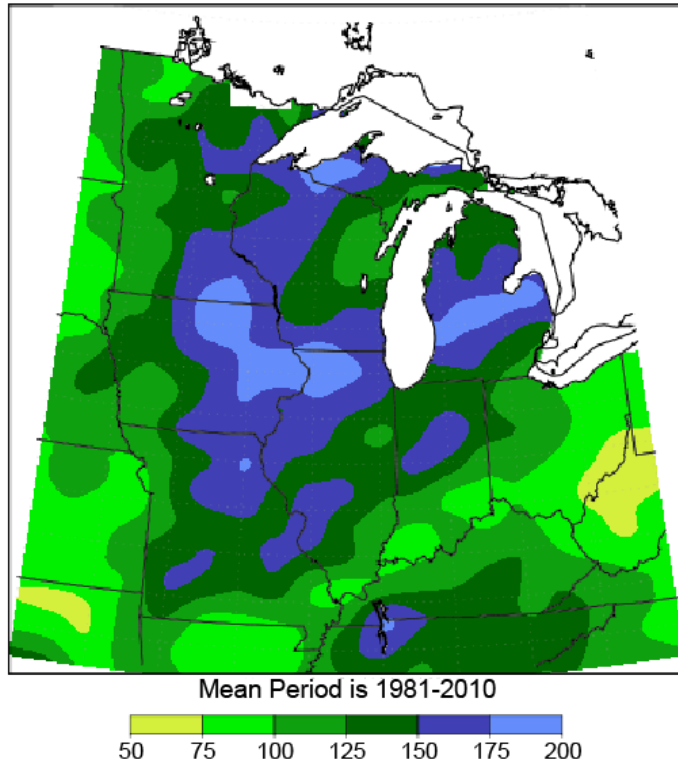
Midwestern Regional Climate Center
Illinois State Water Survey, Prairie Research Institute
University of Illinois at Urbana-Champaign



Midwestern Regional Highlights

Heavy 2013 Spring Precipitation – Impact on Drought Monitor Status

Accumulated Precipitation: Percent of Mean
March 1, 2013 to April 30, 2013



| Week | Nothing | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---------------|---------|-------|-------|-------|-------|------|
| March 5, 2013 | 44.53 | 55.47 | 45.74 | 22.46 | 7.85 | 0.14 |
| May 14, 2013 | 78.29 | 21.71 | 10.18 | 2.62 | 0.01 | 0.00 |



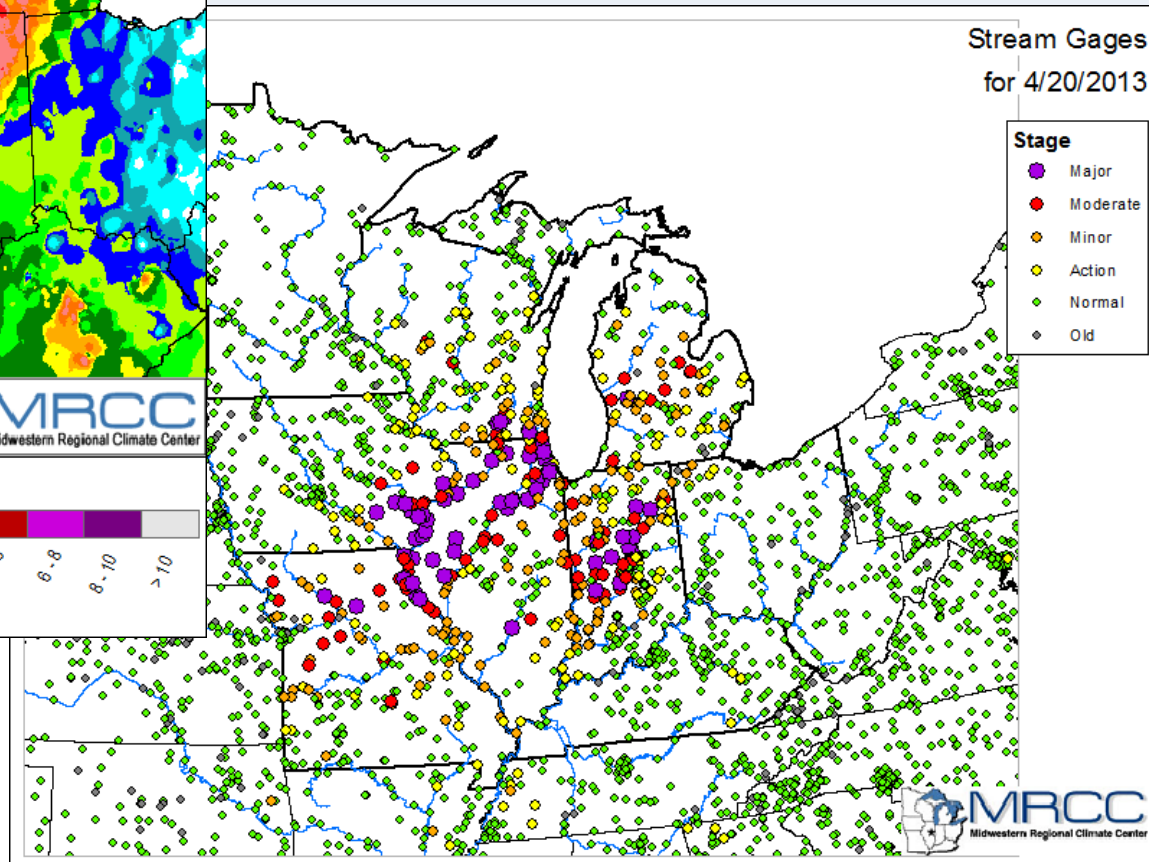
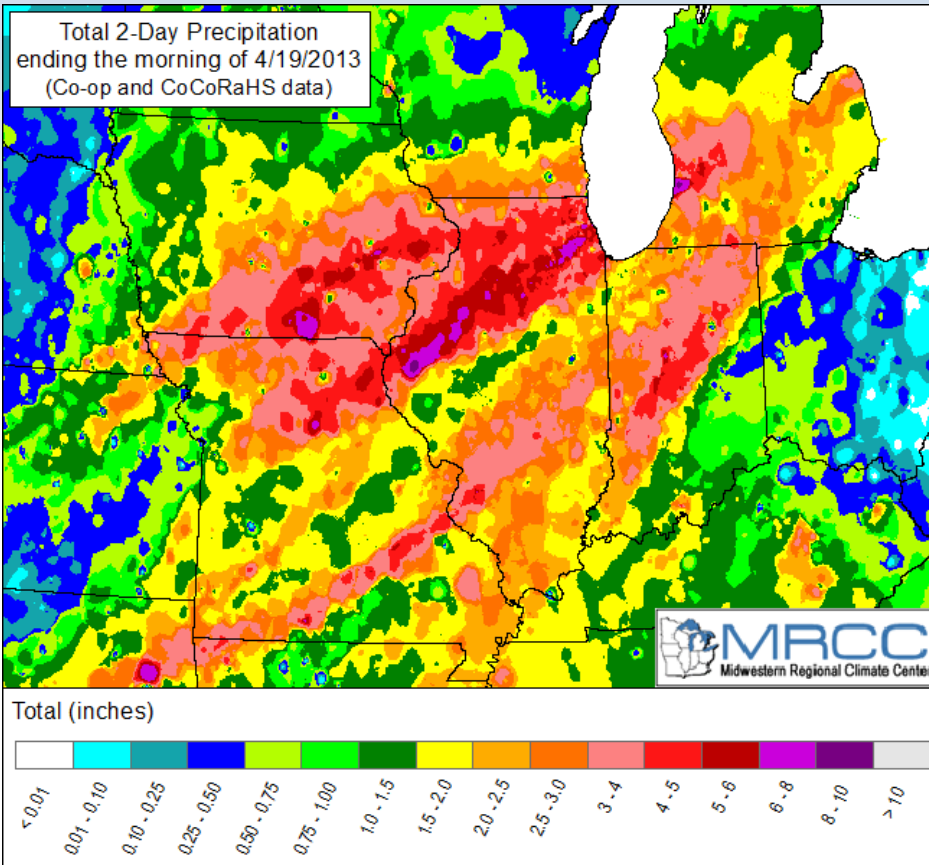
Midwestern Regional Climate Center
Illinois State Water Survey, Prairie Research Institute
University of Illinois at Urbana-Champaign

May 16, 2013

Monthly Climate Webinar

Midwestern Regional Highlights

Heavy Rains, April 17-19 – Flash Flooding and River Flooding



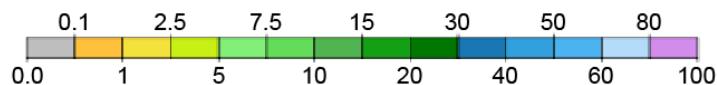
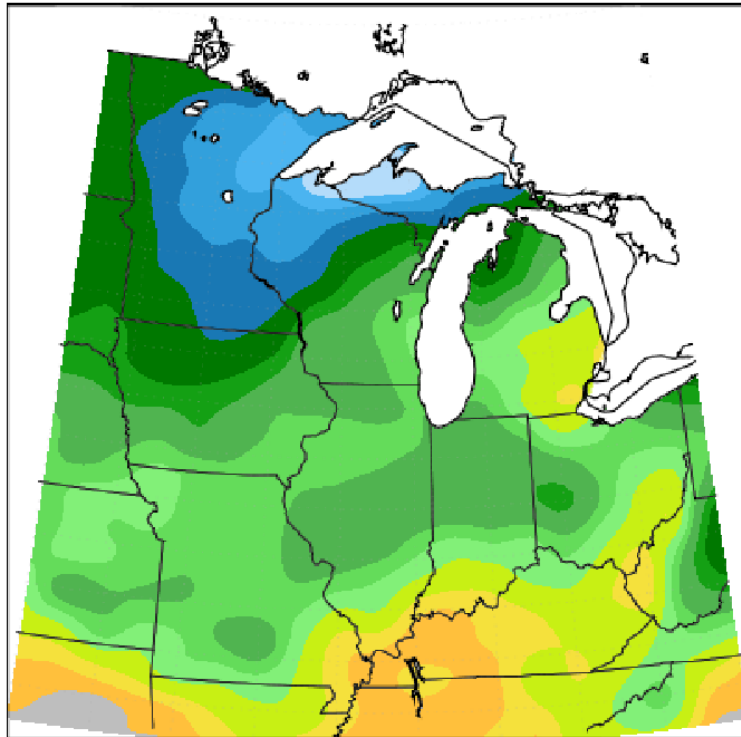
May 16, 2013

Monthly Climate Webinar

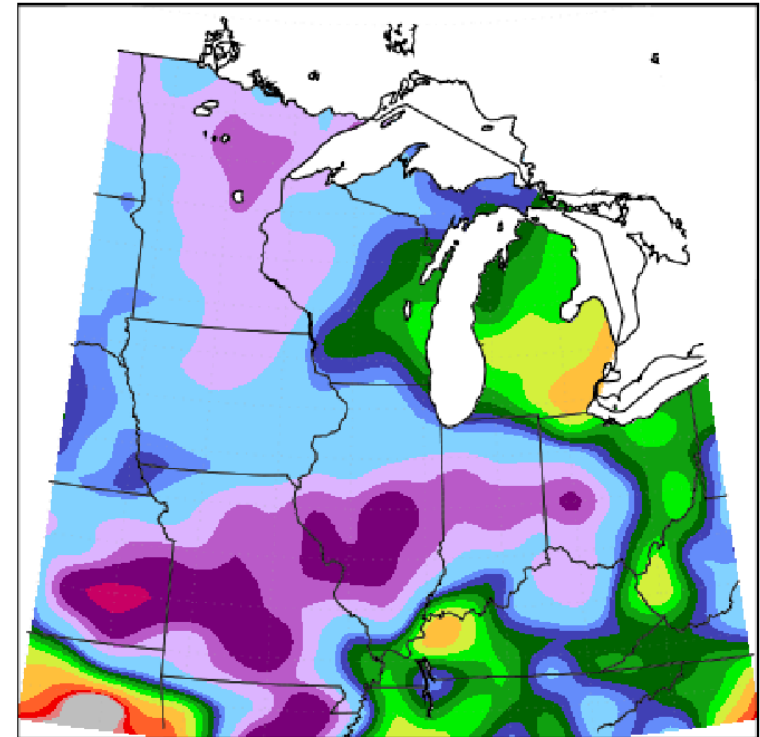
Midwestern Regional Highlights

Lots of 2013 Spring Snow – Several Times Normal for Season

Accumulated Snowfall (in)
March 1, 2013 to May 5, 2013



Accumulated Snowfall: Percent of Mean
March 1, 2013 to May 5, 2013



Mean Period is 1981 - 2010



Midwestern Regional Climate Center
Illinois State Water Survey, Prairie Research Institute
University of Illinois at Urbana-Champaign

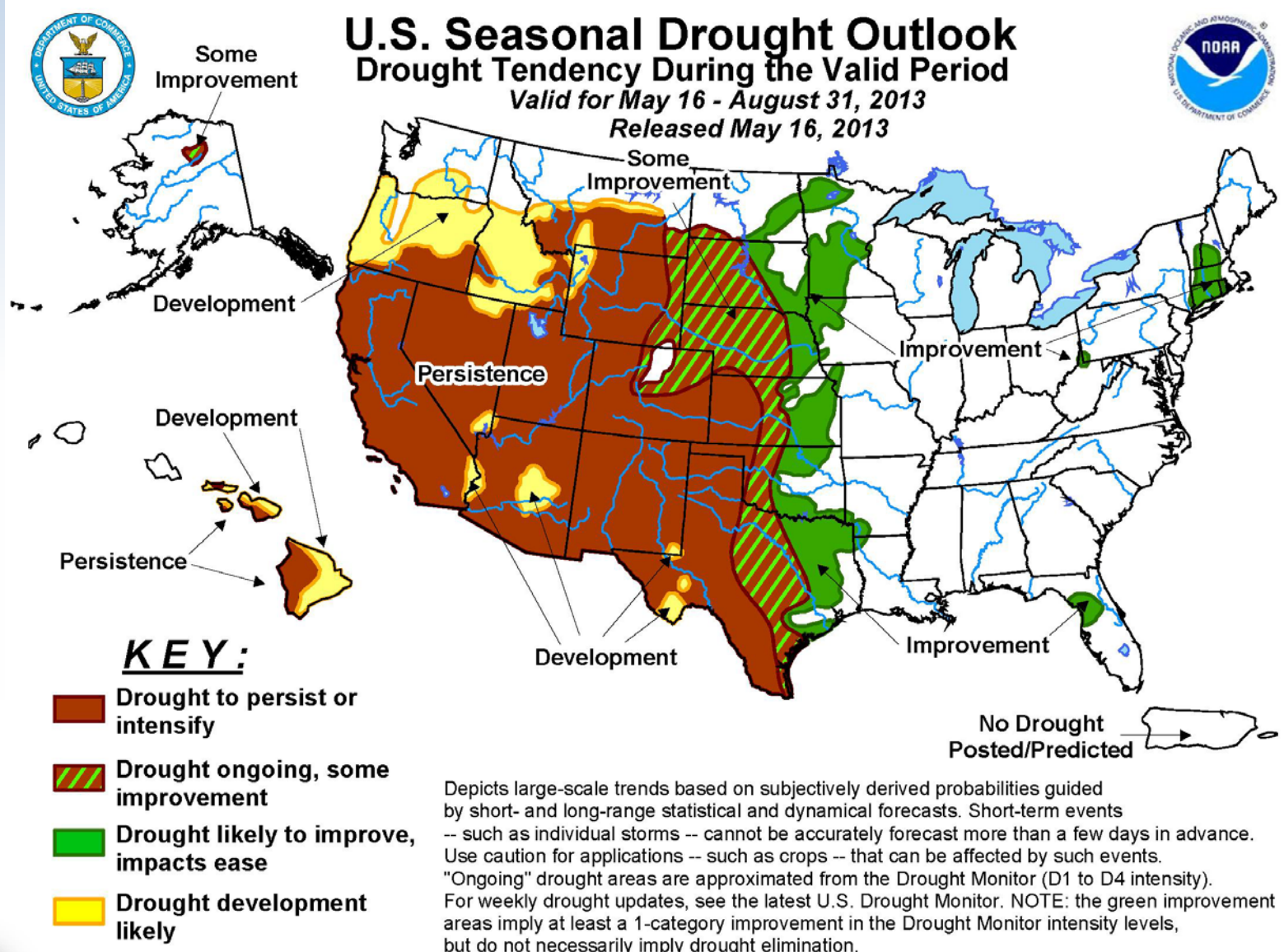


May 16, 2013

Monthly Climate Webinar

U.S. Drought Outlook

3-month forecast

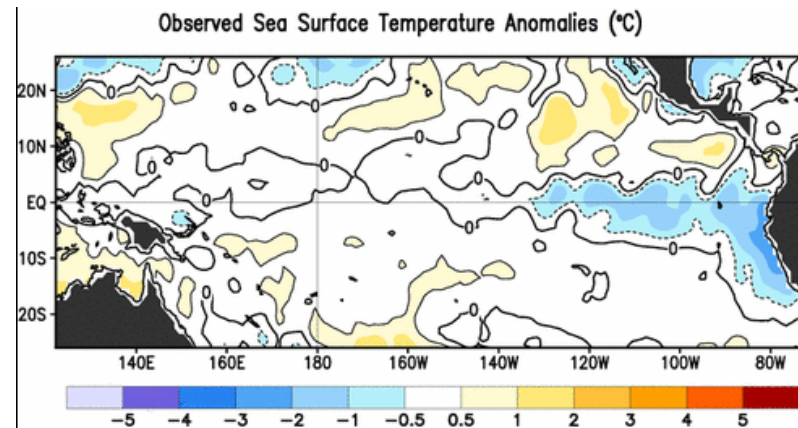


El Niño/La Niña Southern Oscillation (ENSO)

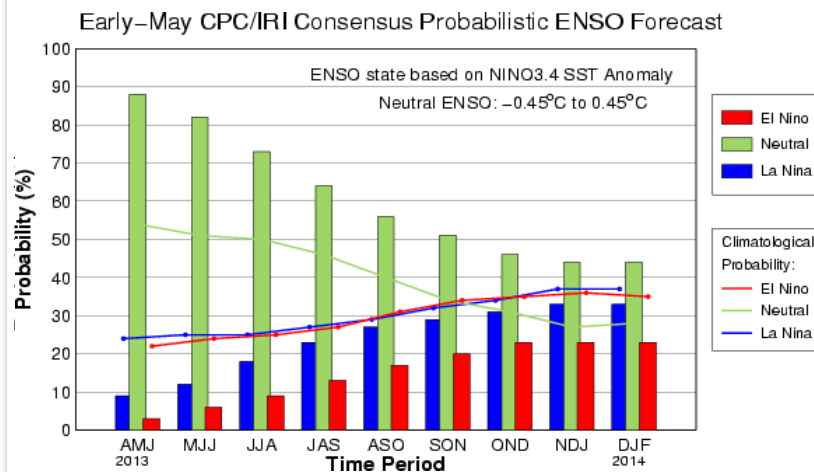
Sea Surface Temperature Update

- ENSO-neutral conditions continue
- Equatorial sea surface temps. are close to average
- Atmospheric circulation over tropical Pacific is near average
- ENSO-neutral favored through the N. Hemisphere summer 2013

Average SST Anomalies
5 May 2013 – 11 May 2013

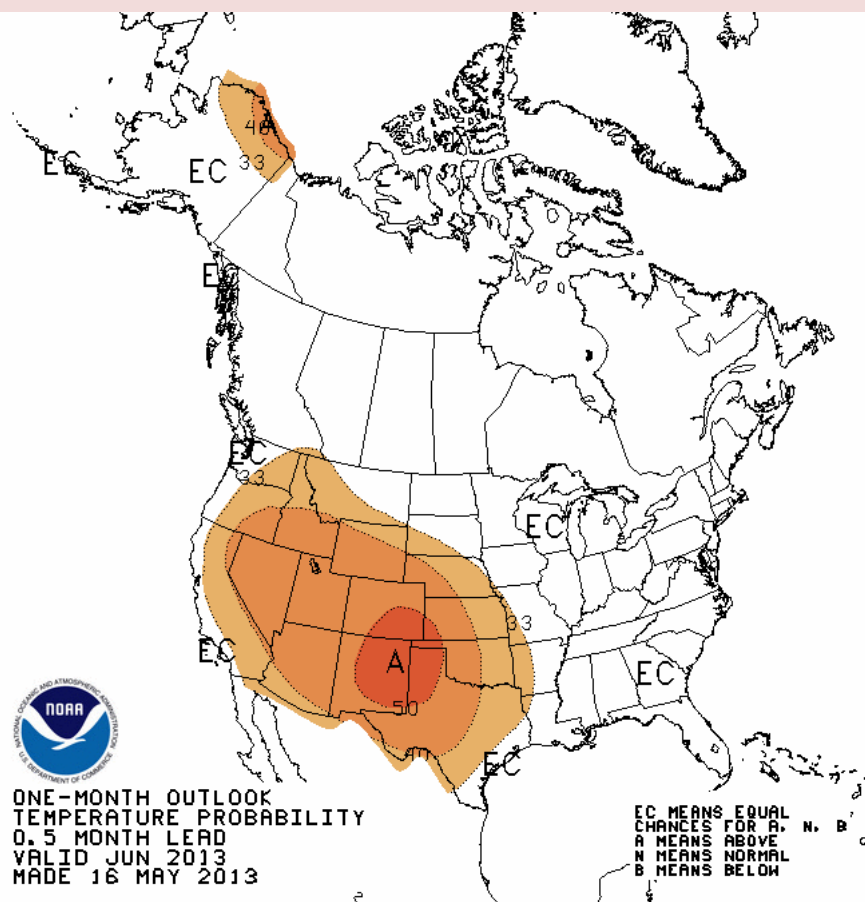


Early-May CPC/IRI Consensus Probabilistic ENSO Forecast

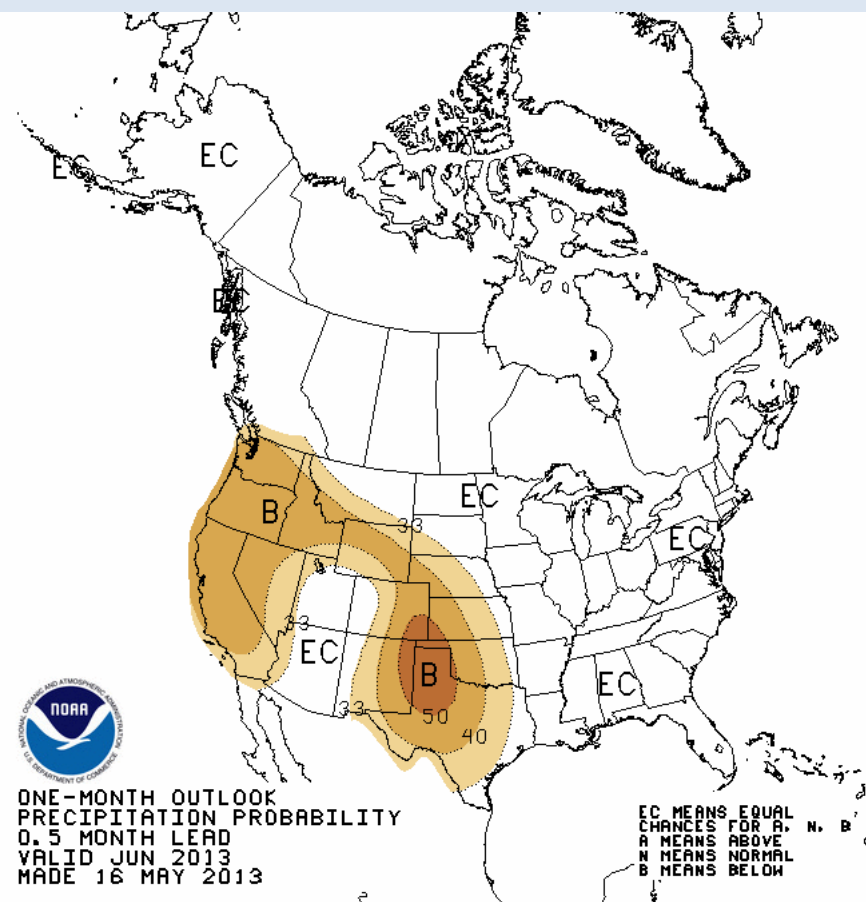


Monthly Forecast (June)

June Average Temperature Probability

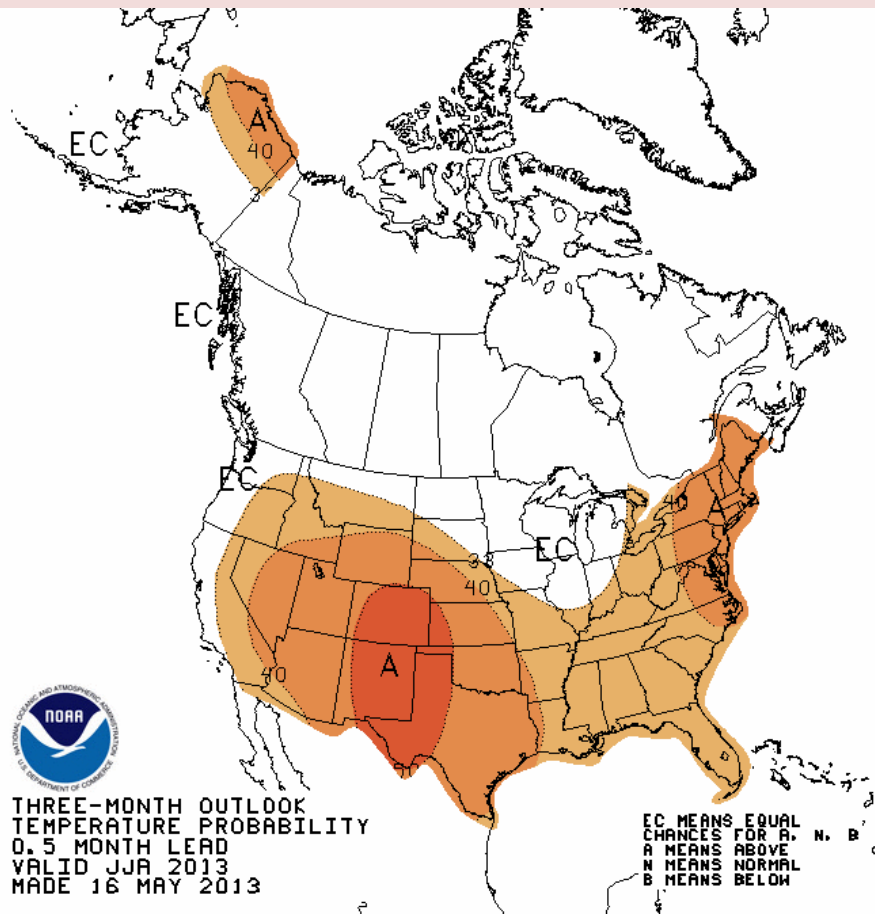


June Total Precipitation Probability

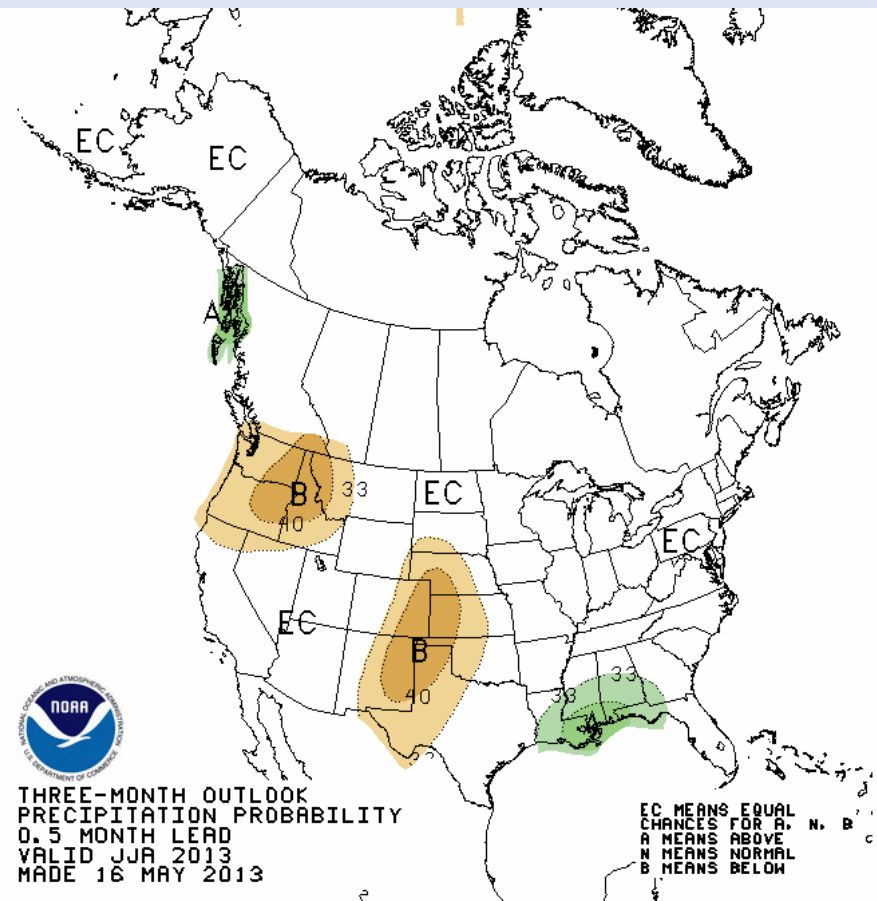


Seasonal Forecast (Jun-Jul-Aug)

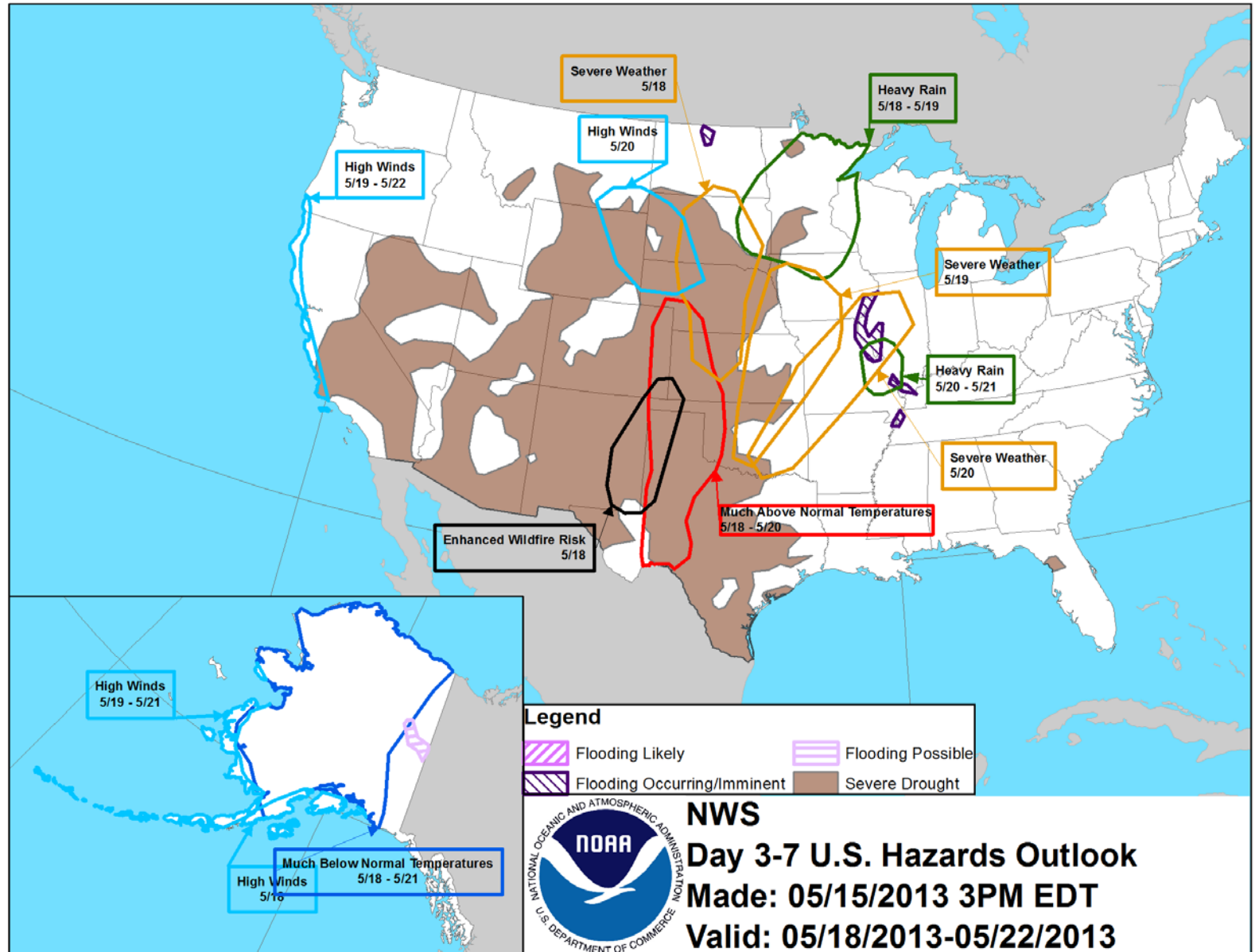
Jun-Jul-Aug Average Temperature Probability



Jun-Jul-Aug Total Precipitation Probability



U.S. Hazards Outlook



For More Information



Today's Presentation:

- <http://www.ncdc.noaa.gov/sotc/briefings>

NOAA's National Climatic Data Center: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

U.S. Drought Monitor: <http://drought.gov>

Climate Portal: www.climate.gov

Midwestern Regional Climate Center: <http://mrcc.isws.illinois.edu/index.jsp>

National Snow & Ice Data Center: <http://nsidc.org/arcticseaicenews/>

Media Contacts

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